



E3697-00044.txt  
SEQUENCE LISTING

<110> CODA THERAPEUTICS LTD

<120> ANTISENSE COMPOUNDS TARGETED TO CONNEXINS AND METHODS  
OF USE THEREOF

<130> E3697-00044

<140> US10/581,813

<141> 2004-12-03

<150> PCT/IB04/004431

<151> 2004-12-03

<150> NZ 529936

<151> 2003-12-03

<160> 65

<170> PatentIn Ver. 3.3

<210> 1

<211> 30

<212> DNA

<213> artificial

<400> 1

gtaattgcgg caagaagaat tgtttctgtc

30

<210> 2

<211> 30

<212> DNA

<213> artificial

<400> 2

gtaattgcgg caggaggaat tgtttctgtc

30

<210> 3

<211> 30

<212> DNA

<213> artificial

<400> 3

ggcaagagac accaaagaca ctaccagcat

30

<210> 4

<211> 27

<212> DNA

<213> artificial

<400> 4

tcctgagcaa tacctaacga acaaata

27

<210> 5

<211> 20

<212> DNA

<213> artificial

<400> 5 catctccttg gtgctcaacc	20
<210> 6 <211> 20 <212> DNA <213> artificial	
<400> 6 ctgaagtcga cttggcttgg	20
<210> 7 <211> 21 <212> DNA <213> artificial	
<400> 7 ctcagatagt ggccagaatg c	21
<210> 8 <211> 20 <212> DNA <213> artificial	
<400> 8 ttgtccaggt gactccaagg	20
<210> 9 <211> 25 <212> DNA <213> artificial	
<400> 9 cgtccgagcc cagaaagatg aggtc	25
<210> 10 <211> 19 <212> DNA <213> artificial	
<400> 10 agaggcgcac gtgagacac	19
<210> 11 <211> 19 <212> DNA <213> artificial	
<400> 11 tgaagacaat gaagatgtt	19
<210> 12 <211> 3088 <212> DNA <213> Homo sapiens	

&lt;400&gt; 12

```

acaaaaaagc ttttacgagg tatcagcact tttctttcat tagggggaag gcgtgaggaa 60
agtaccaaag agcagcggag ttttaaaact taaatagaca ggtctgagtg cctgaacttg 120
ccttttcatt ttacttcata ctccaaggag ttcaatcact tggcgtgact tcactacttt 180
taagcaaaaag agtgggtgccc aggcaacatg ggtgactgga gcgccttagg caaactcctt 240
gacaagggttc aagcctactc aactgctgga ggggaagggtg ggctgtcagt acttttcatt 300
ttccgaatcc tgctgtctggg gacagcgggt gagtcagcct ggggagatga gcagtctgcc 360
tttcgttgta acactcagca acctgggtgt gaaaatgtct gctatgacaa gtctttccca 420
atctctcatg tgcgcttctg ggtcctgcag atcataattg tgtctgtacc cacactcttg 480
tacctggctc atgtgttcta tgtgatgcga aaggaagaga aactgaacaa gaaagaggaa 540
gaactcaagg ttgccccaaac tgatgggtgtc aatgtggaca tgcacttgaa gcagattgag 600
ataaagaagt tcaagtacgg tattgaagag catggtaagg tgaaaatgcg agggggggtg 660
ctgcgaacct acatcatcag tatcctcttc aagtctatct ttgagggtgc cttcttgctg 720
atcccggtgg acatctatgg attcagcttg agtgcgtgtt acacttgcaa aagagatccc 780
tgcccacatc aggtggactg tttcctctct cgccccacgg agaaaaccat cttcatcatc 840
ttcatgctgg tgggtgtcctt ggtgtccctg gccttgaata tcattgaact cttctatgtt 900
ttcttcaagg gcgttaagga tcgggttaag ggaaagagcg acccttacca tgcgaccagt 960
ggtgcgctga gccctgccaa agactgtggg tctcaaaaat atgcttattt caatggctgc 1020
tcctcaccaa ccgtccctct ctgcctatg tctcctcctg ggtacaagct gggtactggc 1080
gacagaaaaa attcttcttg ccgcaattac aacaagcaag caagtgagca aaactgggct 1140
aattacagtg cagaacaaaa tcgaatgggg caggcgggaa gcaccatctc taactcccat 1200
gcacagcctt ttgatttccc cgatgataac cagaattcta aaaaactagc tgctggacat 1260
gaattacagc cactagccat tgtggaccag cgaccttcaa gcagagccag cagtcgtgcc 1320
agcagcagac ctccggcctga tgacctggag atctagatac aggcctgaaa gcatcaagt 1380
tccactcaat tgtggagaag aaaaaagggt ctgtagaaag tgcaccaggt gttaattttg 1440
atccgggtgga ggtgttactc aacagcctta ttcattgaggc tttagaaaaa caaagacatt 1500
agaataccta ggttactggt ggggtgtatg ggtagatggg tggagaggga ggggataaga 1560
gaggtgcatg ttggtattta aagtagtggg ttcaaagaac ttagattata aataagagtt 1620
ccattagggtg atacatagat aagggctttt tctccccgca aacaccctta agaatgggtc 1680
tgtgtatgtg aatgagcggg tggtaatgtt ggctaaatat ttttgtttta ccaagaaaat 1740
gaaataattc tggccaggaa taaatacttc ctgaacatct taggtctttt caacaagaaa 1800
aagacagagg attgtcctta agtccctgct aaaaacattc attgttaaaa tttgcacttt 1860
gaaggtaagc tttctaggcc tgaccctcca ggtgtcaatg gacttgtgct actatatatt 1920
tttattcttg gtatcagttt aaaattcaga caaggccac agaaataagat tttccatgca 1980
tttgcaataa cgtatattct ttttccatcc acttgacaaa tatcattacc atcacttttt 2040
catcattcct cagctactac tcacattcat ttaatgggtt ctgtaaacat ttttaagaca 2100
gttgggatgt cacttaacat tttttttttt tgagctaaag tcagggaatc aagccatgct 2160
taataattta caatcactta tatgtgtgtc gaagagtttg ttttgtttgt catgtattgg 2220
tacaagcaga tacagtataa actcacaaac acagatttga aaataatgca catatgggtg 2280
tcaaatttga acctttctca tggatttttg tgggtgtggg caatatgggtg tttacattat 2340
ataattcctg ctgtggcaag taaagcacac ttttttttcc tcttaaaatg tttttccctg 2400
tgtatcctat tatggatact ggttttgtaa attatgattc tttattttct ctcctttttt 2460
taggataatag cagtaatgct attactgaaa tgaatttcct ttttctgaaa tgtaatcatt 2520
gatgcttgaa tgatagaatt ttagtactgt taaacaggct tagtcattaa tgtgagagac 2580
ttagaaaaaa tgcttagagt ggactattaa atgtgcctaa atgaattttg cagtaactgg 2640
tattcttggg ttttctact taatacacag taattcagaa cttgtattct attatgagtt 2700
tagcagctct ttggagtgc cagcaacttt gatgtttgca ctaagatttt atttggaatg 2760
caagagaggt tgaaagagga ttcagtagta cacatacaac taattttatt gaactatatg 2820
ttgaagacat ctaccagttt ctccaaatgc cttttttaaa actcatcaca gaagattggg 2880
gaaaatgctg agtatgacac ttttcttctt gcatgcatgt cagctacata aacagttttg 2940
tacaatgaaa attactaatt tgtttgacat tccatgttaa actacgggtc tgttcagctt 3000
cattgcatgt aatgtagacc tagtccatca gatcatgtgt tctggagagt gttctttatt 3060
caataaagtt ttaatttagt ataaacat 3088

```

&lt;210&gt; 13

&lt;211&gt; 1308

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 13

```

atgggcgact ggagctttct gggaagactc ttagaaaatg cacaggagca ctccacggtc 60
atcggcaagg tttggctgac cgtgctgttc atcttccgca tcttggtgct gggggccgcg 120

```

## E3697-00044.txt

```

gcggaggacg tgtggggcga tgagcagtca gacttcacct gcaacaccca gcagccgggc 180
tgcgagaacg tctgtctacga cagggccttc cccatctccc acatccgctt ctgggcgctg 240
cagatcatct tcgtgtccac gcccaccctc atctacctgg gccacgtgct gcacatcgtg 300
cgcatggaag agaagaagaa agagagggag gaggaggagc agctgaagag agagagcccc 360
agccccaagg agccaccgca ggacaatccc tcgtcgcggg acgaccgagg cagggtgcgc 420
atggccgggg cgctgctgcg gacctacgtc ttcaacatca tcttcaagac gctgttcgag 480
gtgggcttca tcgccggcca gtactttctg tacggcttcg agctgaagcc gctctaccgc 540
tgcgaccgct ggccctgccc caacacgggtg gactgcttca tctccaggcc cacggagaag 600
accatcttca tcatcttcat gctggcggtg gcctgcgcgt ccctgctgct caacatgctg 660
gagatctacc acctgggctg gaagaagctc aagcaggggc tgaccagccg cctcggcccc 720
gacgcctccg agggcccgct ggggacagcc gatccccgc ccctgcccc cagctcccg 780
ccgcccggcg ttgccatcgg gtccccaccc tactatgcgc acaccgctgc gcccctggga 840
caggcccgcg ccgtgggcta ccccggggcc ccgccaccag ccgcgactt caaactgcta 900
gccctgaccg aggcgcgcgg aaagggccag tccgccaaag tctacaacgg ccaccaccac 960
ctgctgatga ctgagcagaa ctggggcaac caggcgggcg agcggcagcc cccggcgctc 1020
aaggcttacc cggcagcgtc cacgcctgca gccccagcc ccgtcggcag cagctccccg 1080
ccactcgcgc acgaggctga ggcgggcgc gcgccctgc tgcctggatg gagcggcagc 1140
agtctggagg ggagcgccct ggcagggacc cccgaggagg aggagcaggc cgtgaccacc 1200
gcggcccaga tgcaccagcc gcccttgccc ctcggagacc caggtcgggc cagcaaggcc 1260
agcagggcca gcagcgggcg gggcagaccg gaggacttgg ccatctag 1308

```

<210> 14  
 <211> 1601  
 <212> DNA  
 <213> Homo sapiens

```

<400> 14
ctccggccat cgtccccacc tccacctggg ccgcccgcga ggcagcggac ggaggccggg 60
agccatgggt gactggggct tcctggagaa gttgctggac cagggtccgag agcactcgac 120
cgtggtgggt aagatctggc tgacgggtgt cttcatcttc cgcatcctca tcttgggctt 180
ggccggcgag tcagtgtggg gtgacgagca gtcagatttc gagtgttaaca cggcccagcc 240
aggctgcacc aacgtctgct atgaccaggc cttccccatc tcccacatcc gctactgggt 300
gctgcagttc ctcttcgta gcacaccac cctggtctac ctgggccatg tcatttacct 360
gtctcggcga gaagagcggc tggcgcagaa ggagggggag ctgcgggcac tgccggccaa 420
ggaccacag gtggagcggg cgctggccgg catagagctt cagatggcca agatctcggt 480
ggcagaagat ggtcgctgc gcattccgcg agcactgatg ggcacctatg tcgccagtgt 540
gctctgcaag agtgtgctag aggcaggctt cctctatggc cagtggcgcc tgtacggctg 600
gacctggag cccgtgtttg tgtgccagcg agcaccctgc ccctacctcg tggactgctt 660
tgtctctcgc cccacggaga agaccatctt catcatcttc atgttggtgg ttggactcat 720
ctccctggtg cttaacctgc tggagttggg gcacctgctg tgtcgtgcc tcagccgggg 780
gatgaggcca cggcaaggcc aagacgcacc cccgaccag ggcacctctt cagaccctta 840
cacggaccag ggtcttcttc tacctccccg tggccagggg ccctcatccc caccatgcc 900
cacctacaat gggctctcat ccagttagca gaactgggcc aacctgacca cagaggagag 960
gctggcgtct tccaggcccc ctctcttctt ggacccaccc cctcagaatg gccaaaaacc 1020
cccaagtcgt cccagcagct ctgcttctaa gaagcagtat gtatagaggc ctgtggctta 1080
tgtaccccaa cagaggggtc ctgagaagtc tggctgcctg ggatgcccc tgccccctcc 1140
tggaaggctc tgcaagatg actgggctgg ggaagcagat gcttgctggc catggagcct 1200
cattgcaagt tgttcttgaa cacctgaggc cttcctgtgg cccaccaggc actacggctt 1260
cctctccaga tgtgtcttgc ctgagcacag acagtcagca tggaatgctc ttggccaagg 1320
gtactggggc cctctggcct tttgcagctg atccagagga acccagagcc aacttacc 1380
aacctacccc tatggaacag tcacctgtgc gcaggttgtc ctcaaaccct ctctcacag 1440
gaaaaggcgg attgaggctg ctgggtcagc cttgatcgca cagacagagc ttgtgccgga 1500
tttgccctg tcaaggggac tgggtgcctg ttttcatcac tcttctag ttctactgtt 1560
caagcttctg aaataaacag gacttgatca caaaaaaaaa a 1601

```

<210> 15  
 <211> 2574  
 <212> DNA  
 <213> Homo sapiens

<400> 15

## E3697-00044.txt

```

gcaaaaagcg tgggcagttg gagaagaagc agccagagtg tgaagaagcc cacggaagga 60
aagtccaggg agggagaaaa gaagcagaag ttttggcatc tggtccctgg ctgtgccaag 120
atgggcgatt ggagcttcct gggaatttct ctggagggaag tacacaagca ctcgaccgtg 180
gtaggcaagg tctggctcac tgtcctcttc atattccgta tgctcgtgct gggcacagct 240
gctgagtcct cctgggggga tgagcaggct gatttccggt gtgatacgat tcagcctggc 300
tgccagaatg tctgctacga ccaggctttc cccatctccc acattcgcta ctgggtgctg 360
cagatcatct tcgtctccac gccctctctg gtgtacatgg gccacgccat gcacactgtg 420
cgcatgcagg agaagcgcaa gctacgggag gccgagaggg ccaaagaggt ccggggctct 480
ggctcttacg agtaccgggt ggcagagaag gcagaactgt cctgctggga ggaagggaat 540
ggaaggattg ccctccaggg cactctgctc aacacctatg tgtgcagcat cctgatccgc 600
accaccatgg aggtgggctt cattgtgggc cagtacttca tctacggaat cttcctgacc 660
accctgcatg tctgccgcag gagtccctgt cccaccccg tcaactgtta cgtatcccgg 720
cccacagaga agaattgtct cattgtcttt atgtgtggctg tggctgcact gtccctcttc 780
cttagcctgg ctgaactcta ccactgggc tggaaaga tcagacagcg atttgtcaaa 840
ccgcggcagg acatggctaa gtgccagctt tctggcccct ctgtgggcat agtccagagc 900
tgcacaccac ccccgactt taatcagtgc ctggagaatg gccctggggg aaaattcttc 960
aatcccttca gcaataatat ggcctcccaa caaaacacag acaacctgg caccgagcaa 1020
gtacgaggtc agggagcagac tcctggggaa ggtttcatcc aggttcgtta tggccagaag 1080
cctgaggtgc ccaatggagt ctcaccaggt caccgccttc cccatggcta tcatagtgc 1140
aagcgacgtc ttagtaaggc cagcagcaag gcaaggctcag atgacctatc agtgtgacct 1200
tcctttatgg gaggatcagg accaggtggg aacaaaggag gctcagagaa gaaagacgtg 1260
tcccttctga actgatgctt tctactgtc atcactgctt ggctcctttg agccccgggt 1320
ctcaatgacg ttgctcatta attctagaaa ctataaccag ggctctggga tagtaagaga 1380
ggtgacaacc caccagact gcagttccct cccacccctc taccagtat acgaagcctt 1440
tcagattact catgaaacag ggtagaggga aagaaggga gcatggcaaa agctggcctg 1500
gaagggatag ccagagggat agaattgactc tctctctaca taccagcagc ataccaaatg 1560
cgttctctaa gttcctacct ccttgacctg atcacccctc ctctccaag gaagagctca 1620
aagttcccag ccaatagaca gcatgaatca aggaacttgc attatatgtg ctctgaatc 1680
tgttgtctcc atggaccatt cctcggagta gtggtgagat ggccttgggt tgcccttggc 1740
tctcctccc tctactcagc cttaaaaagg gcttcttga actttaccag cagcctcagc 1800
tttacaatg ccttggtagt tacctctggc aaatgcccc ccttggtagt gttgcaacct 1860
ttccttctgc taggggtgac acctagcctg tgtaggtgtc agccctgcta gggagtcact 1920
gtacacacaa actctactgg aattcctgcc aacatctgtc accctgcagc tcctttacag 1980
ttcaatcaa tgatagaaac catcccttcc ctttctccct tggctgttca ccagccatt 2040
ccctgaaggc cttaccaaca ggaatatcca agaagctgtt gtcccctctc gaacctgac 2100
cagatcatca gccactgagg ccagtggaa tccccaggc cttgttaaaa caaagaaagc 2160
attgtacctc ttagattccc ctgtggaaa aaaaaattct gctgtgaaga tgaaaataaa 2220
aatggagaga aaactctgga aaactattt cccctcctat ttacttctt tgctgactgc 2280
caacttagtg ccaagaggag gtgtgatgac agctatggag gccccagat ctctctctc 2340
tggaggcttt agcaggggca aggaaatagt aggggaatct ccagctctct tggcagggcc 2400
ttattttaa gagcgagag attcctatgt ctccctagt gcccctaatga gactgccaa 2460
tgggggctgt agaaaagcct tgccttcccc agggattggc ctggtctctg tattactgg 2520
atccataatg ggttgctgtt gttttgagat aaggtaaagc atgcttgga ttgg 2574

```

&lt;210&gt; 16

&lt;211&gt; 1191

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 16

```

atgagttgga gctttctgac tcgcctgcta gaggagattc acaaccattc cacatttgtg 60
gggaagatct ggctcactgt tctgattgtc ttccggatcg tccttacagc tgtaggagga 120
gaaatccatct attacgatga gcaaagcaaa tttgtgtgca acacagaaca gccgggctgt 180
gagaatgtct gttatgatgc gtttgcacct ctctcccatg tacgcttctg ggtgttccag 240
atcatcctgg tggcaactcc ctctgtgatg tacctgggct atgctatcca caagattgcc 300
aaaatggagc acggtgaagc agacaagaag gcagctcgga gcaagcccta tgcaatgcgc 360
tggaaacaac accgggctct ggaagaaagc gaggaggaca acgaagagga tcctatgatg 420
tatccagaga tggagttaga aagtgataag gaaaaaaag agcagagcca acccaaacct 480
aagcatgatg gccgacgacg gattcgggaa gatgggtcga tgaaaatcta tgtgtgcag 540
ttgctggcaa ggaccgtgtt tgaggtgggt tttctgatag ggcagtattt tctgtatggc 600
ttccaagtcc acccgtttta tgtgtgcagc agacttcctt gtcctcataa gatagactgc 660
tttatttcta gaccactga aaagaccatc ttccttctga taatgtatgg tgttacaggc 720

```

## E3697-00044.txt

```

ctttgcctct tgcttaacat ttgggagatg cttcatttag ggtttgggac cattcgagac 780
tactaaaca gtaaaaggag ggaacttgag gatccgggtg cttataatta tcctttcact 840
tggaatacac catctgctcc ccctggctat aacattgctg tcaaaccaga tcaaatccag 900
tacaccgaac tgtccaatgc taagatcgcc tacaagcaaa acaaggccaa cacagcccag 960
gaacagcagt atggcagcca tgaggagaac ctccagctg acctggaggc tctgcagcgg 1020
gagatcagga tggctcagga acgcttggat ctggcagttc aggcctacag tcacaaaaac 1080
aaccctcatg gtccccggga gaagaaggcc aaagtggggt ccaaagctgg gtccaacaaa 1140
agcactgcc a gtagcaaatc aggggatggg aagaactctg tctggattta a 1191

```

```

<210> 17
<211> 1362
<212> DNA
<213> Homo sapiens

```

```

<400> 17
agcgccaaga gagaaagagc acatatttct ccgtgggaca ctccttgat tggtgggtga 60
gaaatgggag actggagttt cctggggaac atcttggagg aggtgaatga gcactccacc 120
gtcatcgga gagtctggct caccgtgctt ttcattctcc ggatcctcat ccttggcag 180
gccgagagt tctgttgggg ggatgagcaa tccgacttcg tgtgcaacac ccagcagcct 240
ggctgcgaga acgtctgcta cgacgaggcc ttcccatct cccacattcg cctctgggtg 300
ctgcagatca tcttcgtctc caccctgtcc ctgatgtacg tggggcacgc ggtgcactac 360
gtccgcagtg aggagaagcg caaaagccgc gacgaggagc tggggcagca ggcggggact 420
aacggcggcc cggaccaggg cagcgtcaag aagagcagcg gcagcaaaagg cactaagaag 480
ttccggctgg aggggaccct gctgaggacc tacatctgcc acatcatctt caagaccctc 540
tttgaagtgg gcttcacgtt ggccactac ttcctgtacg ggttccggat cctgcctctg 600
taccgctgca gccggtggcc ctgccccaat gtggtggact gcttcgtgtc ccggcccacg 660
gagaaaacca tcttcacctt gttcatgttg tctgtggcct ctgtgtccct attcctcaac 720
gtgatggagt tgagccacct gggcctgaag gggatccggt ctgccctgaa gaggcctgta 780
gagcagcccc tgggggagat tcttgagaaa tccctccact ccattgctgt ctcctccatc 840
cagaaagcca agggctatca gcttctagaa gaagagaaaa tcgtttccca ctatttcccc 900
ttgaccgagg ttgggatggg ggagaccagc ccactgcctg ccaagccttt caatcagttc 960
gaggagaaga tcagcacagg acccctgggg gacttgtccc ggggctacca agagacactg 1020
ccttcctacg ctgaggtggg ggcacaagaa gtggagggcg aggggcccgc tgcagaggag 1080
ggagccgaac ccgaggtggg agagaagaag gaggaagcag agaggctgac cacggaggag 1140
caggagaagg tggccgtgcc agagggggag aaagttagaga cccccggagt ggataaggag 1200
gggtgaaaaa aagagccgca gtcggagaag gtgtcaaaag aagggtctgc agctgagaag 1260
acaccttcac tctgtccaga gctgacaaca gatgatgcca gacccttag caggctaagc 1320
aaagccagca gccgagccag gtcagacgat ctaaccgtat ga 1362

```

```

<210> 18
<211> 966
<212> DNA
<213> Homo sapiens

```

```

<400> 18
atgggggaat ggaccatctt ggagaggctg ctagaagccg cgggtgcagca gcactccact 60
atgatcgga ggatcctggt gactgtgggt gtgatcttcc ggatcctcat tgtggccatt 120
gtgggggaga cgggtgtacga tgatgagcag accatgtttg tgtgcaacac cctgcagccc 180
ggctgtaacc aggcctgcta tgaccgggcc ttcccatct cccacatacg ttactgggtc 240
ttccagatca taatgggtgt taccctcact ctttgcttca tcacctactc tgtgcaccag 300
tccgccaagc agcgagaacg ccgctactct acagtcttcc tagccctgga cagagacccc 360
cctgagtcca taggaggtcc tggaggaact gggggtgggg gcagtgggtg gggcaaacga 420
gaagataaga agttgcaaaa tgctattgtg aatgggggtg tgcagaacac agagaacacc 480
agtaaggaga cagagccaga ttgttttagag gttaaggagc tgactccaca cccatcaggt 540
ctacgcactg catcaaaatc caagctcaga aggcaggaag gcatctcccc cttctacatt 600
atccaagtgg tgttccgaaa tgccctggaa attgggttcc tggttggcca atattttctc 660
tatggcttta gtgtcccagg gttgtatgag tgaataccgt acccctgcat caaggaggta 720
gaatgttatg tgtcccggcc aactgagaag actgtctttc tagtgttcat gtttgctgta 780
agtggcatct gtgttgtgct caacctggct gaactcaacc acctgggatg gcgcaagatc 840
aagctggctg tgcgaggggc tcaggccaag agaaagtcaa tctatgagat tcgtaacaag 900
gacctgccaa gggtcagtgt tcccaatttt ggcaggactc agtccagtga ctctgcctat 960

```

gtgtga

<210> 19  
 <211> 1901  
 <212> DNA  
 <213> Homo sapiens

<400> 19  
 cagggagttg tgggtgcaac actgtactcc agcctgggca acagagggag actctgtctc 60  
 aacaaacaaa caaacaaaaga aaaaacccca cagctatcta gggaaaaagt aaagcaacca 120  
 gcatatagaa gtgacatatt gttatatatt caccataggt ttgctttaag aaatagtgtc 180  
 cccttcagaa tggagaatt tatctgcctc ttatttgatg tggatcagag ctaagatggc 240  
 tgactaaata aacatggggg actggaatct ccttggagat actctggagg aagttcacat 300  
 ccactccacc atgattggaa agatctggct caccatcctg ttcataattc gaatgcttgt 360  
 tctgggtgta gcagctgaag atgtctggaa tgatgagcag tctggcttca tctgcaatac 420  
 agaacaacca ggctgcagaa atgtatgcta cgaccaggcc tttcctatct ccctcattag 480  
 atactgggtt ctgcagggtga tatttgtgtc ttcaccatcc ctggcttaca tgggccatgc 540  
 attgtaccga ctgagagttc ttgaggaaga gaggcaagg atgaaagctc agttaagagt 600  
 agaactggag gaggtagagt ttgaaatgcc tagggatcgg aggagattgg agcaagagt 660  
 ttgtcagctg gagaaaaaga aactaaataa agctccactc agaggaacct tgctttgcac 720  
 ttatgtgata cacattttca ctgcgtctgt ggttgaagtt ggattcatga ttggacagta 780  
 ccttttatat ggatttctact tagagccgct atttaagtgc catggccacc cgtgtccaaa 840  
 tataatcgac tgttttgtct caagaccaac agaaaagaca atattcctat tatttatgca 900  
 atctatagcc actatttcac ttttcttaaa cattcttgaa attttcacc taggttttaa 960  
 aaagattaaa agagggcttt ggggaaaata caagtgaag aaggaaacata atgaattcca 1020  
 tgcaacaag gcaaaacaaa atgtagccaa ataccagagc acatctgcaa attcactgaa 1080  
 gcgactccct tctgcccctg attataatct gttagtggaa aagcaaacac aactgacgt 1140  
 gtaccctagt ttaaattcat ctctgtatt ccagccaaat cctgacaatc atagtgtaaa 1200  
 tgatgagaaa tgcattttgg atgaacagga aactgtactt tctaatagaga tttccacat 1260  
 tagtactagt ttagtgcatt ttcaacacat cagttcaaac aataacaaaag acactcataa 1320  
 aatattttga aaagaactta atggtaacca gttaatggaa aaaagagaaa ctgaaggcaa 1380  
 agacagcaaa aggaactact actctagagg tcaccgttct attccagggt ttgctataga 1440  
 tggagagaac aacatgaggc agtcaccca aacagtttct tccttgccag ctaactgcga 1500  
 ttggaaaccg cgggtggcta gagctacatg gggttcctct acagaacatg aaaaccgggg 1560  
 gtcacctcaa aaaggttaacc tcaagggcca gttcagaaag ggcacagtca gaaccttcc 1620  
 tccttcacaa ggagattctc aatcacttga cattccaaac actgctgatt ctttgggagg 1680  
 cctgtccttt gagccagggt tggtcagaac ctgtaataat cctgtttgtc ctccaaatca 1740  
 cgtagtgtcc ctaacgaaca atctcattgg taggcgggtt cccacagatc ttcagatcta 1800  
 aacagcgggt ggcttttaga cattatataat attatcagag aagtagccta gtggtcgtgg 1860  
 ggcacagaaa aaatagatag gggcagctct aaagaccagc t 1901

<210> 20  
 <211> 1311  
 <212> DNA  
 <213> Homo sapiens

<400> 20  
 atgagctgga gcttcctgac gcggtgctg gaggagatcc acaaccactc caccttcgtg 60  
 ggcaagggtg ggctcacggt gctgggtggtc ttccgcatcg tgctgacggc tgtgggcggc 120  
 gaggccatct actcgacga gcaggccaag ttcacttgca acacgcggca gccaggctgc 180  
 gacaacgtct gctatgacgc cttcgcgccc ctgtcgcacg tgcgcttctg ggtcttccag 240  
 attgtggtca tctccacgcc ctcggtcatg tacctgggct acgccgtgca ccgcctggcc 300  
 cgtgcgtctg agcaggagcg gcgcccgcgc ctccgcccgc gcccggggcc acgccgcgcg 360  
 ccccgagcgc acctgccgcc cccgcacgcc ggctggcctg agcccgccga cctgggcgag 420  
 gaggagccca tgctgggcct gggcgaggag gaggaggagg aggagacggg ggcagccgag 480  
 ggcgcccggc aggaagcgga ggaggcaggc gcggaggagg cgtgactaa ggcggtcggc 540  
 gctgacggca aggcggcagg gacccggggc ccgaccgggc aacacgatgg gcggaggcgc 600  
 atccagcggg agggcctgat gcgcgtgtac gtggcccagc tgggtggccag ggcagctttc 660  
 gaggtggcct tcctgggtgg ccagtacctg ctgtacggct tcgaggtgcg accgttcttt 720  
 ccctgcagcc gccagccctg cccgcacgtg gtggactgct tcgtgtcgcg ccctactgaa 780  
 aagacggctc tcctgctggg tatgtacgtg gtcagctgcc tgtgcctgct gctcaacctc 840

## E3697-00044.txt

```

tgtgagatgg cccacctggg cttgggcagc gcgcaggacg cgggtgcgcgg ccgcccgcggc 900
ccccgcggct ccgccccgcg ccccgcgccg cggccccgcg cctgcgccct ccctgcggcg 960
gccgtgggct tggcctggcc gcccgactac agcctgggtg tgccggcggg cgagcgcgct 1020
cgggcgcatg accagaacct ggcaaacctg gccctgcagg cgctgcgcga cggggcagcg 1080
gctggggacc gcgaccggga cagttcgccg tgcgtcgccg tccctgcggc ctcccggggg 1140
ccccccagag caggcgcccc cgcgtcccgg acgggcagtg ctacctctgc gggcactgtc 1200
ggggagcagg gccggccccg caccacagag cggccaggag ccaagcccag ggctggctcc 1260
gagaagggca gtgccagcag cagggacggg aagaccaccg tgtggatctg a 1311

```

<210> 21  
 <211> 1588  
 <212> DNA  
 <213> Homo sapiens

```

<400> 21
agacattctc tgggaaaggg cagcagcagc cagggtgtggc agtgacaggg aggtgtgaat 60
gaggcaggat gaactggaca ggtttgtaca cttgtctcag tggcgtgaac cggcattcta 120
ctgccattgg ccgagtatgg ctctcggtca tcttcattct cagaatcatg gtgctgggtg 180
tggctgcaga gagtgtgtgg ggtgatgaga aatcttcctt catctgcaac acaactccagc 240
ctggctgcaa cagcgttttg tatgaccaat tcttccccat ctcccatgtg cggctgtggt 300
ccctgcagct catcctagtt tccaccccag ctctcctcgt ggccatgcac gtggctcacc 360
agcaacacat agagaagaaa atgctacggc ttgagggcca tggggacccc ctacacctgg 420
aggaggtgaa gaggcacaag gtccacatct cagggacact gtggtggacc tatgtcatca 480
gcgtggtgtt ccggctgttg tttgaggccg tcttcattga tgccttttat ctgctctacc 540
ctggctatgc catggtgctg ctggtcaagt gcgacgtcta cccctgcccc aacacagtgg 600
actgcttcgt gtcccccccc accgagaaaa ccgtcttcac cgtcttcatt ctagctgcct 660
ctggcatctg catcatcctc aatgtggccg aggtggtgta cctcatcatc cgggcctgtg 720
cccgcggagc ccagcgccgc tccaatccac cttcccgcaa gggctcgggc ttcggccacc 780
gcctctcacc tgaatacaag cagaatgaga tcaacaagct gctgagttag caggatggct 840
ccctgaaaga catactgcgc cgcagccctg gcaccggggc tgggctggct gaaaagagcg 900
accgtgctgc ggcctgctga tgccacatac caggcaacct cccatcccac cccgaccct 960
gccctgggcg agccccctct tctccccctg cgggtgcacag gcctctgcct gctggggatt 1020
actcgatcaa aaccttcctt ccctggctac ttcccttctt cccggggcct tccttttgag 1080
gagctggagg ggtggggagc tagaggccac ctatgccagt gctcaaggtt actgggagt 1140
tgggctgccc ttgttgccct cacccttccc tcttccccct cctctctctt gggaccactg 1200
ggtacaagag atgggatgct ccgacagcgt tccaatttat gaaactaatc ttaaccctgt 1260
gctgtcagat accctgtttc tggagtcaca tcagttagga gggatgtggg taagaggagc 1320
agagggcagg ggtgctgtgg acatgtgggt ggagaagggg ggggtggccg cactagtaaa 1380
ggaggaatag tgcttgctgg ccacaaggaa aaggaggagg tgtctggggg gagggagtta 1440
gggagagaga agcaggcaga taagttaggag caggggttgg tcaaggccac ctctgcctct 1500
agtccccaag gcctctctct gcctgaaatg ttacacatta aacaggattt tacagcaaaa 1560
aaaaaaaaaa aaaaaaaaaa aaaaaaaa 1588

```

<210> 22  
 <211> 2263  
 <212> DNA  
 <213> Homo sapiens

```

<400> 22
cggagccccct cggcgggcgcc cggccccagga cccgcctagg agcgcaggag ccccagcgca 60
gagaccccaa cgccgagacc cccgccccgg ccccgcccg cttcctcccc acgcagagca 120
aaccgccccag agtagaagat ggattggggc acgctgcaga cgatcctggg ggggtgtgaa 180
aaacactcca ccagcattgg aaagatctgg ctaccgtcc tcttcatttt tcgcattatg 240
atcctcgttg tggctgcaaa ggaggtgtgg ggagatgagc aggccgactt tgtctgcaac 300
accctgcagc caggctgcaa gaacgtgtgc tacgatcact acttccccat ctcccacatc 360
cggctatggg ccctgcagct gatcttcgtg tccacgccag cgctcctagt ggccatgcac 420
gtggcctacc ggagacatga gaagaagagg aagttcatca agggggagat aaagagtga 480
tttaaggaca tcgaggagat caaaaccag aaggtccgca tcgaaggctc cctgtgggtg 540
acctacacaa gcagcatctt cttccgggtc atcttcgaag ccgccttcac gtacgtcttc 600
tatgtcatgt acgacggctt ctccatgcag cggctggtga agtgcaacgc ctggccttgt 660
cccaacactg tggactgctt tgtgtcccgg cccacggaga agactgtctt cacagtgttc 720

```



## E3697-00044.txt

```

atgattgcag tgtctggaat ttgcatcctg ctgaatgtca ctgaattgtg ttatttgcta 780
attagatatt gttctgggaa gtcaaaaaag ccagtttaac gcattgcccc gttgttagat 840
taagaaatag acagcatgag agggatgagg caacccgtgc tcagctgtca aggctcagtc 900
gccagcattt cccaacacaa agattctgac cttaaatgca accatttgaa acccctgtag 960
gcctcagggtg aaactccaga tgccacaatg gagctctgct cccctaaagc ctcaaaacaa 1020
aggcctaatt ctatgcctgt cttaattttt ttctacttaa gttagttcca ctgagacccc 1080
aggctgttag gggttatttg tgtaaggtag ttctcatatt taaacagagg atatcgcat 1140
ttgtttcttt ctctgaggac aagagaaaaa agccagggtc cacagaggac acagagaagg 1200
tttgggtgtc ctccctgggt tctttttgcc aactttcccc acgttaaagg tgaacattgg 1260
ttctttcatt tgctttggaa gttttaatct ctaacagtgg acaaagttac cagtgcctta 1320
aactctgtta cactttttgg aagtgaaaac ttgttagtat gataggttat ttgatgtaa 1380
agatgttctg gataccatta tatgttcccc ctgtttcaga ggctcagatt gtaatatgta 1440
aatggtagtg cattcgctac tatgatttaa ttgaaatat ggtcttttgg ttatgaatac 1500
tttgcagcac agctgagagg ctgtctgttg tattcattgt ggtcatagca cctaacaaca 1560
ttgtagccctc aatcgagtg gagacagtag aagttcctag tgatggctta tgatagcaaa 1620
tgccctcatg tcaaatattt agatgtaatt ttgtgtaaga aatacagact ggatgtacca 1680
ccaactacta cctgtaatga caggcctgtc caacacatct cctttttcca tgactgtgg 1740
agccagcatc ggaaagaacg ctgattttaa gaggtcgctt gggaatttta ttgacacagt 1800
accatttaat ggggaggaca aaatggggca ggggaggag agttttctgt cgtaaaaaac 1860
agattttgaa agactggact ctaaattctg ttgattaaag atgagctttg tctacttcaa 1920
aagtttgttt gcttaccctt tcagcctcca attttttaag tgaataataa actaataaca 1980
tgtgaaaaga atagaagcta aggttttagat aaatattgag cagatctata ggaagattga 2040
acctgaatat tgccattatg ctgacatgg ttccaaaaaa atgggtactcc acatacttca 2100
gtgagggtaa gtattttcct gttgtcaaga atagcattgt aaaagcattt tgtaataata 2160
aagaatagct ttaatgatat gcttgaactt aaaaaaaat tgtaatgtat caaatacatt 2220
taaacatta aatatataatc tctataataa aaaaaaaaaa aaa 2263

```

&lt;210&gt; 23

&lt;211&gt; 2220

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 23

```

gaacttcttt cctggcacag gactcactgt gccccttccc gctgtgggta caaggctctgc 60
ccccacccc agctctccaa agcccaccgg cctccctgga ggccgaggtc gacggcccg 120
cgcaccggga gggggggctc ccagggggtg cccacgcacg gtcaagggtc cgcgccaaag 180
ggggaccggg ctggggccga agcgggcacg gtactcgcg gcaactagcg tgggcgagtc 240
ctgattgcag tcggacctgc cgccgcggca cttaacagtt tgcagagtgc tccccgccc 300
tgatctcatt ggagccttcg gacagcccag cccatggcca ccgatgcccc catttcacgc 360
ctgaggaagc ggaggctcag acggggccac agcccctccg gaggctggcc cgggagcgcc 420
tggcagcgct ggtctagga gccggtcccc tctgtctccc tctctcgcg cgcccggggt 480
gtgcccgcgg tctgtgtgca ccactgtgta gcccagctcc ggcgccctcg cctctgctgt 540
gggccccggg gacgcggggt caggccaccg cgttgggcag gccgctgcag gtaggcacgg 600
ccccaccag gcgccatgga ctggaagaca ctccaggccc tactgagcgg tgtgaacaag 660
tactccacag cgttcgggcg catctggctg tccgtgggtg tcgtcttccg ggtgctggta 720
tacgtgggtg ctgcagagcg cgtgtggggg gatgagcaga aggactttga ctgcaacacc 780
aagcagcccc gctgcaccaa cgtctgtcac gacaactact tccccatctc caacatccgc 840
ctctgggccc tgcagctcat ctctgtcaca tgcccctcgc tgctgggtcat cctgcacgtg 900
gcctaccgtg aggagcggga gcgcccggac cgccagaaac acggggacca gtgcgccaag 960
ctgtacgaca acgcaggcaa gaagcacgga ggcctgtggt ggacctacct gttcagcctc 1020
atcttcaagc tcatcattga gttcctcttc ctctacctgc tgcaactctt ctggcatggc 1080
ttcaatatgc cgcgcttggt gcagtgtgcc aactgtggcc cctgccccaa catcgtggac 1140
tgctacattg cccgacctac cgagaagaaa atcttcacct acttcatggt gggcgccctc 1200
gccgtctgca tcgtactcac catctgtgag ctctgtacc tcatctgcca cagggtcctg 1260
cgaggcctgc acaaggacaa gcctcgagg ggttgagcc cctcgtcctc cgccagccga 1320
gcttccacct gccgtgccca ccacaagctg gtggaggctg gggagggtga tccagaccca 1380
ggcaataaca agctgcaggc ttcagacccc aacctgacct ccactctgac ccatctgacc acagggcagg 1440
ggtggggcaa catgcgggct gccaatggga catgcagggc ggtgtggcag gtggagagg 1500
cctacagggg ctgagtgacc ccactctgag ttactaaagt tatgcaactt tcgttttggc 1560
agatattttt tgacactggg aactgggctg tctagccggg tataaggtaac ccacaggccc 1620
agtgccagcc ctcaaaggac atagactttg aaacaagcga attaactatc tacgtgcct 1680
gcaagggggc acttagggca ctgctagcag ggcttcaacc aggaagggat caaccaggga 1740

```

## E3697-00044.txt

```

agggatgatc aggagaggct tccctgagga cataatgtgt aagagagggtg agaagtgtct 1800
ccaagcagac acaacagcag cacagaggctc tggaggccac acaaaaagtgt atgtctcgccc 1860
tgggctagcc tcagcagacc taaggcatct ctactccctc cagaggagcc gccagattc 1920
ctgcagtgga gaggaggctt tccagcagca gcaggctctgg agggctgaga atgaacctga 1980
ctagagggttc tggagatacc cagaggctccc ccaggctcatc acttggctca gtggaagccc 2040
tctttcccca aatcctactc cctcagcctc aggcagtggt gctcccatct tcctcccccac 2100
aactgtgctc aggcctggtgc cagcctttca gaccctgtct ccagggactt ggggtggatgc 2160
gctgatagaa catcctcaag acagtttctt tgaaatcaat aaatactgtg ttttataaaa 2220

```

<210> 24  
 <211> 1243  
 <212> DNA  
 <213> Homo sapiens

```

<400> 24
caaggctccc aaggcctgag tgggcaggta gcacccagggt atagaccttc cacgtgcagc 60
acccaggaca cagccagcat gaactgggca tttctgcagg gcctgctgag tggcgtgaac 120
aagtactcca cagtgtctgag ccgcactctgg ctgtctgtgg tgttcatctt tcgtgtgctg 180
gtgtacgtgg tggcagcgga ggagggtgtgg gacgatgagc agaaggactt tgtctgcaac 240
accaagcagc ccggtgccc caacgtctgc tatgacgagt tcttccccgt gtcccacgtg 300
cgcctctggg ccctacagct catcctggtc acgtgcccct cactgctcgt ggtcatgcac 360
gtggcctacc gcgaggaacg cgagcgcaag caccacctga aacacgggccc caatgccccg 420
tccctgtacg acaacctgag caagaagcgg ggcggactgt ggtggacgta cttgctgagc 480
ctcatcttca aggccgccgt ggatgctggc ttcctctata tcttccaccg cctctacaag 540
gattatgaca tgccccgcgt ggtggcctgc tccgtggagc ctgccccca cactgtggac 600
tgttacatct cccggccccc ggagaagaag gtcttcacct acttcatggt gaccacagct 660
gccatctgca tcctgtctaa cctcagtga gtccttctacc tgggtgggcaa gaggtgcatg 720
gagatcttcg gccccaggca ccggcgccct cggtgccggg aatgcctacc cgatacgtgc 780
ccaccatatg tcctctccca gggaggggcac cctgaggatg ggaactctgt cctaataaag 840
gctgggtcgg cccagtgga tgcagggtgg tatccataac ctgcgagatc agcagataag 900
atcaacaggt cccccccaca tgaggccacc caggaaaaaa ggcaggggca gtggcatcct 960
tgccgtagca ggggtggtgag gaggggtggc gtgggggctc aggaagctcg cccagggggc 1020
aatgtgggag gttgggggta gtttgggtccc tgggtcctga gcctcagggg agggaggttg 1080
atagctactg gggattttgt atatggcaac agtatatgtc aaacctctta ttaaatatga 1140
ttttcccagt aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1200
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 1243

```

<210> 25  
 <211> 1299  
 <212> DNA  
 <213> Homo sapiens

```

<400> 25
atgaaattca agctgcttgc tgagtcctat tgccggctgc tgggagccag gagagccctg 60
aggagtagtc actcagtagc agctgacgcg tgggtccacc atgaactgga gtatctttga 120
gggactcctg agtgggggtca acaagtactc cacagccttt gggcgcatct ggctgtctct 180
ggctcttcac ttccgcgtgc tgggtgtacct ggtgacggcc gagcgtgtgt ggagtgatga 240
ccacaaggac ttcgactgca atactcgcca gcccggctgc tccaacgtct gctttgatga 300
gttcttccct gtgtcccatg tgcgcctctg ggccctgcag cttatcctgg tgacatgccc 360
ctcactgctc gtggtcatgc acgtggccta ccgggaggtt caggagaaga ggcaccgaga 420
agccccggg gagaacagtg ggcgcctcta cctgaacccc ggcaagaagc ggggtgggct 480
ctggtggaca tatgtctgca gcctagtgtt caaggcgagc gtggacatcg ctttctcta 540
tgtgttccac tcattctacc ccaaataat cctccctcct gtgggtcaagt gccacgcaga 600
tccatgtccc aatatagtgg actgcttcat ctccaagccc tcagagaaga acattttcac 660
cctcttcatg gtggccacag ctgccatctg catcctgtct aacctcgtgg agctcatcta 720
cctggtgagc aagagatgcc acgagtgcct ggcagcaagg aaagctcaag ccatgtgcac 780
aggctcatc cccacggta ccacctcttc ctgcaaaca gacgacctcc tttcgggtga 840
cctcatcttt ctgggtctag acagtcatcc tctctctta ccagaccgcc cccgagacca 900
tgtgaagaaa accatcttgt gaggggctgc ctggactggt ctggcagggt gggcctggat 960
ggggaggctc tagcatctct cataggtgca acctgagagt gggggagcta agccatgagg 1020
taggggcagg caagagagag gattcagacg ctctgggagc cagttcctag tcctcaactc 1080

```

## E3697-00044.txt

cagccacctg	ccccagctcg	acggcactgg	gccagttccc	cctctgctct	gcagctcggg	1140
ttccttttct	agaatggaaa	tagtgagggc	caatgcccag	ggttggaggg	aggagggcgt	1200
tcatagaaga	acacacatgc	gggcaccttc	atcgtgtgtg	gcccactgtc	agaacttaat	1260
aaaagtcaac	tcatttgctg	gaaaaaaaaa	aaaaaaaaaa			1299

<210> 26  
 <211> 1805  
 <212> DNA  
 <213> Homo sapiens

<400> 26

ctgggaagac	gctggtcagt	tcacctgccc	cactggttgt	tttttaaaaca	aattctgata	60
caggcgacat	cctcactgac	cgagcaaaga	ttgacattcg	tatcatcact	gtgcaccatt	120
ggcttctagg	cactccagtg	gggtaggaga	aggagggtctg	aaaccctcgc	agagggatct	180
tgccctcatt	ctttgggtct	gaaacactgg	cagtcgttgg	aaacaggact	cagggataaa	240
ccagcgcaat	ggattggggg	acgctgcaca	ctttcatcgg	gggtgtcaac	aaacactcca	300
ccagcatcgg	gaagggtgtg	atcacagtca	tctttatatt	ccgagtcatt	atcctcgtgg	360
tggctgcccc	ggaagtgtgg	ggtgacgagc	aagaggactt	cgctctgaac	acactgcaac	420
cgggatgcaa	aaatgtgtgc	tatgaccact	ttttcccggg	gtcccacatc	cggtgtgggg	480
ccctccagct	gatcttcgtc	tccaccccag	cgctgctggg	ggccatgcat	gtggcctact	540
acaggcacga	aaccactcgc	aagttcaggc	gaggagagaa	gaggaatgat	ttcaaagaca	600
tagaggacat	taaaaagcag	aagggttcgga	tagaggggtc	gctgtgggtg	acgtacacca	660
gcagcatctt	tttccgaatc	atctttgaag	cagcctttat	gtatgtgttt	tacttccttt	720
acaatgggta	ccacctgccc	tgggtgttga	aatgtgggat	tgacccctgc	cccaaccttg	780
ttgactgctt	tattttctagg	ccaacagaga	agaccgtgtt	taccattttt	atgatttctg	840
cgctctgtgat	ttgcatgctg	cttaacgtgg	cagagtgtgt	ctacctgctg	ctgaaagtgt	900
gttttaggag	atcaaagaga	gcacagacgc	aaaaaaatca	ccccaatcat	gccctaaagg	960
agagttaagca	gaatgaaatg	aatgagctga	tttcagatag	tgggtcaaaat	gcaatcacag	1020
gtttcccaag	ctaaacattt	caaggtaaaa	tgtagctgcg	tcataaggag	acttctgtct	1080
tctccagaag	gcaataccaa	cctgaaagtt	ccttctgtag	cctgaagagt	ttgtaaatga	1140
ctttcataat	aaatagacac	ttgagttaac	tttttgtagg	atacttgctc	cattcatata	1200
caacgtaatc	aaatatgtgg	tccatctctg	aaaacaagag	actgcttgac	aaaggagcat	1260
tgcagtcact	ttgacagggt	ccttttaagt	ggactctctg	acaaaagtgg	tactttctga	1320
aaatttatat	aactgtttgt	gataaggaac	atttatccag	gaattgatac	ttttattagg	1380
aaaagatatt	tttataggct	tggatgtttt	tagttctgac	tttgaattta	tataaagtat	1440
ttttataatg	actggctctc	cttacctgga	aaaacatgcg	atgttagttt	tagaattaca	1500
ccacaagtat	ctaaatttgg	aacttacaaa	gggtctatct	tgtaaatatt	gttttgcatt	1560
gtctgttggc	aaatttgtga	actgtcatga	tacgcttaag	gtggaaaagt	ttcattgcac	1620
aatatatatt	tactgcttcc	tgaatgtaga	cggaaacagt	tggaaagcaga	aggccttttt	1680
aactcatccg	tttgccaatc	attgcaaaaa	actgaaatgt	ggatgtgatt	gcctcaataa	1740
agctcgctcc	cattgcttaa	gccttcaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	1800
aaaaa						1805

<210> 27  
 <211> 2094  
 <212> DNA  
 <213> Homo sapiens

<400> 27

aaatgaaaga	gggagcagga	ggcgccgggtc	ccagccacct	cccaagggtcc	ctggctcagc	60
tctgacaccc	cagtcccggc	cccaggggtga	gtgggggttg	gtggcggttt	aggggcacca	120
ggggcggtgt	gggacctgtg	taagtgtggg	gtggggagga	tctcaggaga	tgtggagggt	180
ggaggcacag	gaggccaggg	agcctggtgc	cgcactccca	ccacgctggg		240
gtaggagggc	agggacacct	ccgacaaagg	accctgtgag	agttatgaaa	gcggagtgtc	300
ctctgtacca	gccccccacc	ctgagaggag	ttcactgcag	taaaaatggg	gagagaaatg	360
gtgggccaag	aaaggagtgg	tctcgtgcc	tctgccactc	ccactcctcc	catgggcacc	420
aaattgggtc	tagcgtctcg	ggttcgaggc	tccactcttc	ccacagcatc	cttgacagct	480
aggggcaccg	ctgggttttc	gcttccgaaa	caggccaagt	caggggctgg	tccagctgat	540
ctccaaggct	cttcctaaga	atctgggatc	tggaggatcc	cagggctcga	cggagacggc	600
tcaggggggtg	cggctaaaat	gcaaatgggg	gatcctcccc	agcaccatc	ggcctccaaag	660
agaaggtaac	ccatagctga	gcgtcgcctg	ctccccctcg	gccctcccgt	ggcctcccgt	720

## E3697-00044.txt

```

ttcatactgg tctcatcgct aaacccgggc ctctcctacc tcacgactca ccctgaagtc 780
agagaaggct caacggaccc caccgccata ggcttggaaag gggcaggggt ccttgacttg 840
ccccatcccc tgactccccg ccccgcgctc ccagcgccat gggggagtgg gcgttccttg 900
gctcgtgctg ggacgcccgt cagctgcagt cgccgctcgt gggccgcctc tggctggtgg 960
tcatgctgat cttccgcatc ctgggtgctg ccacgggtgg gggcgccgtg ttcgaggacg 1020
agcaagagga gttcgtgtgc aacacgctgc agccgggctg tcgccagacc tgctacgacc 1080
gcgccttccc ggtctccccc taccgcttct ggctcttcca catcctgctg ctctcggcgc 1140
ccccgggtgct gttcgtcgtc tactccatgc accgggcagg caaggaggcg ggcggcgctg 1200
aggcggcgcc gcagtgcgcc cccggactgc ccgaggccca gtgcgcgccg tgcgccctgc 1260
gcgcccgcgg cgcgcgccgc tgctacctgc tgagcggtgg gctgcgcctg ctggccgagc 1320
tgaccttcct gggcgggccag gcgctgctct acggcttccg cgtggccccg cacttcgcgt 1380
gcgcgggtcc gccctgcccc cacacggctc actgcttcgt gagccggccc accgagaaga 1440
ccgtcttcgt gctcttctat ttcgcggtgg ggctgctgtc ggcgtgctc agcgtagccg 1500
agctgggcca cctgctctgg aaggggcgcc cgcgcgccgg ggagcgtgac aaccgctgca 1560
accgtgcaca cgaagaggcg cagaagctgc tcccgcgccg gccgcccga cctattgttg 1620
tcaactggga agaaaacaga caccttcaag gagagggtc ccctggtagc cccacccca 1680
agacagagct ggatgcccc ctgcttccgta gggaaagcac ttctcctgca ggatggcatt 1740
gctcttccc cttccatggc acgtagtatg tgctcagtaa atatgtgttg gatgagaaac 1800
tgaagggtgc cccaggccta caccactgcc atggccgaac actatccatg ctatggtggg 1860
caccatctct ctgtagacag ttctgtgtcc acaacccaga cccctccaca caaacccaga 1920
tggggctgtg ccgctgtttt ccagatgtat tcattcaaca aatatttgta gggtagctac 1980
tgtgtgtcag aagatgttca agatcagcat catccgatgg aaatagcata tgagccatgt 2040
atgtagtttc aagtttttca ttagccgcat taaaaaagta aaaggaaaca aatg 2094

```

<210> 28  
<211> 840  
<212> DNA  
<213> Homo sapiens

```

<400> 28
atgtgtggca ggttcctgct gcggtgctgt gcggaggaga gccggcgctc ccccccgctg 60
gggcgcctct tgcttcccg tctcctggga ttccgccttg tgctgctggc tgccagtggg 120
cctggagtct atggtgatga gcagagtga ttcgtgtgtc acaccagca gccgggctgc 180
aaggctgcct gcttcgatgc cttccacccc ctctccccgc tgcgtttctg ggtcttccag 240
gtcatcttgg tggctgtacc cagcgccctc tatatgggtt tcaactgtga tcacgtgatc 300
tggcactggg aattatcagg aaaggggag gaggaggaga ccctgatcca gggacgggag 360
ggcaacacag atgtcccagg ggctggaagc ctcaggctgc tctgggctta tgtggctcag 420
ctgggggctc ggcttgtcct ggagggggca gccctggggt tgcagtacca cctgtatggg 480
ttccagatgc ccagctcctt tgcagtgcgc cgagaacctt gccttggtag tataacctgc 540
aatctgtccc gccctctga gaagaccatt ttcctaaaga ccatgttttg agtcagcggg 600
ttctgtctct tgtttacttt tttggagctt gtgcttctgg gtttggggag atggtggagg 660
acctggaagc acaaatcttc ctcttctaaa tacttcttaa ctcagagag caccagaaga 720
cacaagaaag caaccgatg cctcccagtg gtggaaacca aagagcaatt tcaagaagca 780
gttccaggaa gaagcttagc ccaggaaaaa caaagaccag ttggaccag agatgcctga 840

```

<210> 29  
<211> 672  
<212> DNA  
<213> Homo sapiens

```

<400> 29
atgagttgga tgttcctcag agatctcctg agtggagtaa ataaatactc cactgggact 60
ggatggattt ggctggctgt cgtgtttgtc ttccgtttgc tggctctacat ggtggcagca 120
gagcacatgt ggaaagatga gcagaaagag tttgagtga acagtagaca gcccggttgc 180
aaaaatgtgt gttttgatga cttcttcccc atttcccaag tcagactttg ggccttacaa 240
ctgataatgg tctccacacc ttcacttctg gtggttttac atgtagccta tcatgagggt 300
agagagaaaa ggcacagaaa gaaactctat gtcagcccag gtacaatgga tgggggccta 360
tggtagcgtt actttatcag cctcattggt ttgaaattgg cttccttgtt 420
tttttttata agctatatga tggctttagt gttccctacc ttataaagtg tgatttgaag 480
ccttgtccca acactgtgga ctgcttcatc tccaaaccca ctgagaagac gatcttcatc 540
ctcttcttgg tcatcacctc atgcttgtgt attgtgttga atttcattga actgagtttt 600

```

## E3697-00044.txt

ttggtttctca agtgctttat taagtgtgtg ctccaaaaat atttaaaaaa acctcaagtc 660  
ctcagtggtg ga 672

<210> 30  
<211> 1113  
<212> DNA  
<213> Homo sapiens

<400> 30  
atggaaggcg tggacttgct aggggtttctc atcatcacat taaactgcaa cgtgaccatg 60  
gtaggaaagc tctggttcgt cctcacgatg ctgctgcgga tgctgggtgat tgtcttggcg 120  
ggcgacccg tctaccagga cgagcaggag aggtttgtct gcaacacgct gcagccggga 180  
tgcgccaatg tttgttacga cgtctttctc cccgtgtctc acctgcggtt ctggctgatc 240  
cagggcgtgt gcgtcctcct cccctccgcc gtcttcagcg tctatgtcct gcaccgagga 300  
gccacgctcg ccgcgctggg cccccgccgc tgccccgacc cccgggagcc ggcttccggg 360  
cagagacgct gcccgcggcc attcggggag cgcggcggcc tccagggtgcc cgacttttcg 420  
gccggctaca tcatccacct cctcctccgg accctgctgg aggcagcctt cggggccttg 480  
cactactttc tctttggatt cctggccccg aagaagtcc cttgcacgcg ccctccgtgc 540  
acgggcgtgg tggactgcta cgtgtcgcgg ccacagaga agtccctgct gatgctgttc 600  
ctctggggcg ttagcgcgct gtcttttctg ctgggacctg ccgacctggt ctgcagcctg 660  
cggcgcgga tgcgcaggag gccgggaccc cccacaagcc cctccatccg gaagcagagc 720  
ggagcctcag gccacgcgga gggacgcggg actgacgagg aggggtggcg ggaggaaagag 780  
ggggcaccgg cggccccggg tgcacgcgcc ggaggggagg gggctggcag ccccaggcgt 840  
acatccaggg tgtcagggca cacgaagatt ccggtatgag atgagagtga ggtgacatcc 900  
tccgccagcg aaaagctggg cagacagccc cggggcaggc cccaccgaga ggccgcccag 960  
gaccccgagg gctcaggatc cgaggagcag ccctcagcag cccccagccg cctggccgcg 1020  
cccccttctt gcagcagcct gcagccccct gaccgcctg ccagctccag tgggtgctcc 1080  
cacctgagag ccagggaagtc tgagtgggtg tga 1113

<210> 31  
<211> 1632  
<212> DNA  
<213> Homo sapiens

<400> 31  
atgggggact ggaacttatt ggggtggcatc ctagaggaag ttcactccca ctcaaccata 60  
gtggggaaaa tctggctgac catcctcttc atcttccgaa tgctgggtact tcgtgtggct 120  
gctgaggatg tctgggatga tgaacagtca gcatttgcct gcaacacccg gcagccagggt 180  
tgcaacaata tctgttatga tgatgcattc cctatctctt tgatcagggt ctgggtttta 240  
cagatcatct ttgtgtcttc tccttctttg gtctatatgg gccatgcaat ttataggctc 300  
agggcctttg agaaagacag gcagaggaaa aagtcacacc ttagagccca gatggagaat 360  
ccagatcttg acttggagga gcagcaaaga atagataggg aactgaggag gttagaggag 420  
cagaagagga tccataaagt ccctctgaaa ggatgtctgc tgcgtactta tgtcttacac 480  
atcttgacca gatctgtgct ggaagtagga ttcattgatag gccaatatat tctctatggg 540  
tttcaaagtc acccccttta caaatgcact caacctcctt gcccctaatgc ggtggattgc 600  
tttgtatcca ggccactga gaagacaatt ttcattgctt ttatgcacag cattgcagcc 660  
atttccttgt tactcaatat actggaaata tttcatctag gcatcagaaa aattatgagg 720  
acactttata agaaatccag cagtgagggc attgaggatg aaacaggccc tccattccat 780  
ttgaagaaat attctgtggc ccagcagtgat atgatttgct cttcattgcc tgaaagaatc 840  
tctccacttc aagctaacaa tcaacagcaa gtcattcgag ttaattgtgc aaagtctaaa 900  
accatgtggc aaatcccaca gccaaaggcaa cttgaagtag acccttccaa tgggaaaaag 960  
gactggcttg agaaggatca gcatacgga cagctccatg ttcacagccc gtgtccctgg 1020  
gctggcagtg ctggaaatca gcacctggga cagcaatcag accattcctc atttggcctg 1080  
cagaatacaa tgtctcagtc ctggctaggt acaactacgg ctctagaaa ctgtccatcc 1140  
tttgagtag gaacctggga gcagtcccag gaccagaaac cctcagggtga gcctctcaca 1200  
gatcttcata gtcactgcag agacagtga ggcagcatga gagagagtgg ggtctggata 1260  
gacagatctc gccaggcag tcgcaaggcc agctttctgt ccagattggt gtctgaaaag 1320  
cgacatctgc agcagactc aggaagctct ggttctcgga atagctcctg cttggatttt 1380  
cctcactggg aaaacagccc ctcacctctg ccttcagtca ctgggcacag aacatcaatg 1440  
gtaagacagg cagccctacc gatcatggaa ctatcacaag agctgttcca ttctggatgc 1500  
tttctttttc ctttctttct tcctgggggtg tgtatgtatg tttgtgttga cagagaggca 1560

gatggagggg gagattattt atggagagat aaaattattc attcgataca ttcagttaaa 1620  
 ttcaattcat aa : 1632

<210> 32  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 32  
 ccaaggcagg ctagctacaa cgatccagtc a 31

<210> 33  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 33  
 ccgtgggagg ctagctacaa cgagtggag g 31

<210> 34  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 34  
 ccgtgggagg ctaactacaa cgagtggag g 31

<210> 35  
 <211> 32  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 35  
 agtcttttgg gctagctaca acgatgggct ca 32

<210> 36  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN

## sequence

<400> 36  
 tttggagagg ctagctacaa cgaccgcagt c 31

<210> 37  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 37  
 tttggagagg ctaactacaa cgaccgcagt c 31

<210> 38  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 38  
 acgaggaagg ctagctacaa cgatgtttct g 31

<210> 39  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 39  
 ttgcggcggc tagctacaac gacgaggaat 30

<210> 40  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 40  
 ccatgcgagg ctagctacaa cgatttgctc t 31

<210> 41  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic ODN  
sequence

&lt;400&gt; 41

ttggtccagg ctagctacaa cgagatggct a

31

&lt;210&gt; 42

&lt;211&gt; 30

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic ODN  
sequence

&lt;400&gt; 42

gtaattgcgg caggaggaat tgtttctgtc

30

&lt;210&gt; 43

&lt;211&gt; 30

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic ODN  
sequence

&lt;400&gt; 43

gacagaaaca attcctcctg ccgcaattac

30

&lt;210&gt; 44

&lt;211&gt; 18

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic ODN  
sequence

&lt;400&gt; 44

ccaaggcact ccagtcac

18

&lt;210&gt; 45

&lt;211&gt; 19

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence: Synthetic ODN  
sequence

&lt;400&gt; 45

tccgtgggac gtgagagga

19

&lt;210&gt; 46

&lt;211&gt; 18

&lt;212&gt; DNA



<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic ODN sequence

<400> 46

agtcttttga tgggctca

18

<210> 47

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic ODN sequence

<400> 47

ttttggagat ccgcagtct

19

<210> 48

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic ODN sequence

<400> 48

cacgaggaat tgtttctgt

19

<210> 49

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic ODN sequence

<400> 49

tttgcggcac gaggaatt

18

<210> 50

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic ODN sequence

<400> 50

cccatgcatg tttgctctg

19

<210> 51

<211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 51  
 gttggtccac gatggctaa

19

<210> 52  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 52  
 gttgcagagg ctagctacaa cgaaaaatcg g

31

<210> 53  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 53  
 gttctttagg ctagctacaa cgactctccc t

31

<210> 54  
 <211> 33  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 54  
 gtccttaaag gctagctaca acgatcggtc ttt

33

<210> 55  
 <211> 33  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic ODN  
 sequence

<400> 55  
 tctcttcgag gctagctaca acgagtcctt aaa

33

<210> 56  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic ODN  
sequence

<400> 56  
tctcttcgag gctaactaca acgagtcctt aaa

33

<210> 57  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic ODN  
sequence

<400> 57  
gatacggagg ctagctacaa cgacttctgg g

31

<210> 58  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic ODN  
sequence

<400> 58  
cttcgatagg ctagctacaa cgaggacctt c

31

<210> 59  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic ODN  
sequence

<400> 59  
cttcgatagg ctaactacaa cgaggacctt c

31

<210> 60  
<211> 33  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic ODN  
sequence

<400> 60

ggtgaagagg ctagctacaa cgaagtcctt tct 33

<210> 61  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic ODN  
sequence

<400> 61  
ccttaaaactc gttctttatc tctcccttca 30

<210> 62  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic ODN  
sequence

<400> 62  
acttcctct ctatttcttg ctcaaattcc 30

<210> 63  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic ODN  
sequence

<400> 63  
tacggacctt ctgggttttg atctcttcga 30

<210> 64  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic ODN  
sequence

<400> 64  
agcttctcta gttttgggtc ttccaggcatt 30

<210> 65  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic ODN  
sequence

<400> 65  
gtaattgcgg caggaggaat tgtttctgtc

30